

AMENDMENTS TO THE CLAIMS

Claim 1 (Original): A semiconductor acceleration sensor comprising:

- 5 a non-single-crystal-silicon-based substrate;
 an insulating beam structure having a movable section and a stationary section;
 at least one piezoresistor positioned on the beam structure;
- 10 an insulating supporter positioned on the non-single-crystal-silicon-based substrate for fixing the stationary section of the beam structure and forming a distance between the beam structure and the non-single-crystal-silicon-based
- 15 substrate; and
- a thin film transistor (TFT) control circuit positioned on the non-single-crystal-silicon-based substrate and electrically connected to the piezoresistor and the
- 20 beam structure.

Claim 2 (Original): The semiconductor acceleration sensor of claim 1 wherein the non-single-crystal-silicon-based substrate is a glass

25 substrate.

Claim 3 (Original): The semiconductor acceleration sensor of claim 2 wherein the TFT control circuit is a low temperature polysilicon TFT control circuit.

30

Claim 4 (Original): The semiconductor acceleration sensor of claim 1 wherein the

non-single-crystal-silicon-based substrate is a quartz substrate.

5 Claim 5 (Original): The semiconductor acceleration sensor of claim 4 wherein the TFT control circuit is a high temperature polysilicon TFT control circuit.

10 Claim 6 (Original): The semiconductor acceleration sensor of claim 1 wherein the beam structure and the supporter are formed simultaneously.

15 Claim 7 (Original): The semiconductor acceleration sensor of claim 6 wherein the beam structure and the supporter both comprise silicon dioxide.

Claim 8 (Original): The semiconductor acceleration sensor of claim 1 wherein the piezoresistor comprises doped polysilicon.

20 Claim 9 (Original): The semiconductor acceleration sensor of claim 1 wherein the piezoresistor comprises a piezoelectric thin film.

25 Claim 10 (Original): The semiconductor acceleration sensor of claim 9 wherein the piezoelectric thin film comprises ZnO, BaTiO₃, or PbZrTiO₃ (PZT).

30 Claim 11 (Original): The semiconductor acceleration sensor of claim 1 wherein the non-single-crystal-silicon-based substrate further comprises a thin film transistor display region for displaying a variation of pressure detected by the

semiconductor acceleration sensor.

Claims 12-23 (Canceled)

5